

Attorney Docket No. 2070-US2/5487-142IP

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Yaworski *et al.*  
Serial No.: 10/722,351  
Filed: November 25, 2003  
For: *Electrical Connectors and Methods for Using the Same*

Confirmation No.: 4728  
Group Art Unit: 2833  
Examiner: B. Hammond

DECLARATION OF RUDY. BUKOVNIK  
UNDER 37 C.F.R. § 1.132

Sir:

I, Rudy R. Bukovnik, hereby declare as follows:

1. I am a named inventor of the above-identified patent application. I am currently employed by Tyco Electronics Corporation as a development manager. I have been an employee of Tyco Electronics Corporation since about 1989.
2. Busbar connectors such as the "Flood-Seal<sup>®</sup> Rubberized Aluminum Bar" (brochure provided as Exhibit A hereto) offered by Homac Mfg. Company have been widely employed in the power transmission industry for more than ten (10) years. I estimate that sales of these and similar busbar connectors exceed 1.5 million units and 22.5 million dollars (\$22.5M) per year.
3. Busbar connectors of the type shown in Exhibit A suffer from significant shortcomings and a relatively high failure rate in use. In particular, these connectors suffer from "craft sensitivity." In use, an operator must trim the rubber boot over each port to the proper diameter to seal about a subsequently inserted cable. If too much of the boot is trimmed, the opening will be too large to properly seal about the cable. If too little of the boot is trimmed, the overstretched boot will tend to crack or split over time, thereby defeating the seal.
4. In accordance with embodiments of the invention as disclosed and claimed in the above-identified application, a busbar assembly for electrically connecting first and second conductors includes a housing defining first and second ports and an interior

cavity. Each of the first and second ports communicates with the interior cavity and includes an entrance opening, an exit opening, and a conductor passage extending between and communicating with the entrance and exit openings. The conductor passage is adapted to receive the conductor therethrough. Sealant is disposed in the first and second conductor passages. The sealant is adapted for insertion of the conductor therethrough such that the sealant provides a seal about the inserted conductor. A first penetrable closure wall extends across the first conductor passage. A second penetrable closure wall extends across the second conductor passage. An electrically conductive busbar conductor member is disposed in the interior cavity. At least one holding mechanism is provided to selectively secure each of the conductors to the busbar conductor member for electrical contact therewith. Such busbar assemblies may serve to cost-effectively overcome the deficiencies of the prior art busbar connectors and thereby satisfy a long felt, unmet need of the power transmission industry.

5. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed: Rudy R. Bukovnik  
RUDY R. BUKOVNIK

Date: 5-25-05

# EXHIBIT A

Attorney Docket No.: NC070-US2/5487-142IP

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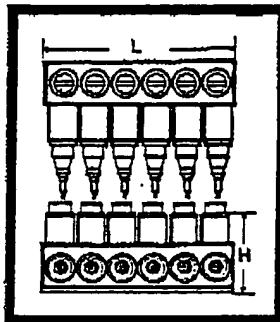
HOMAC



## "Flood-Seal"<sup>TM</sup> Rubberized Aluminum Bar

Fully insulated and watertight – suitable for direct burial, handhole or pedestal application.

REA approved



**RUGGED CONSTRUCTION**  
Fabricated with 6061-T6 aluminum with molded EPDM rubber insulation

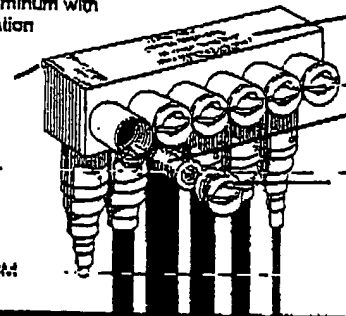
**EXCLUSIVE "RUBBER BUMPER"** molded into back of the connector, guards against handling damage

**INDIVIDUALLY TESTED** for insulation integrity and watertightness

**WIDE RANGE** wire range of #12 to 350 MCM or #12 to 500 MCM

This illustration shows a 350 MCM connector

**EASY TO FOLLOW INSTRUCTIONS** molded into top of connector



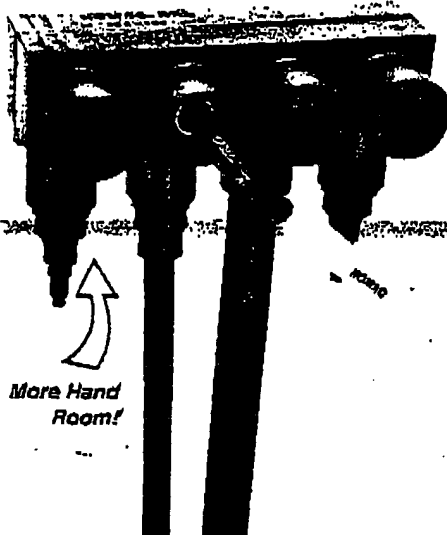
**BALL BOTTOM SCREW DESIGN** breaks up interstrand oxides

**FLEXIBLE "GRIP" ABS** allow easy access to set screws and eliminate accidental removal

**SIMPLE INSTALLATION** uses 3/16" hex wrench

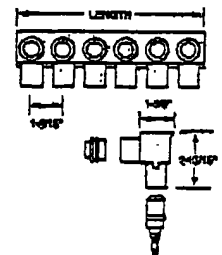
CABLE RANGE	OUTLETS	CATALOG NUMBER	L	H
#12 SOL TO 350 MCM	3	RAB-3	3-7/32	2-5/8
	4	RAB-4	4-7/32	
	5	RAB-5	5-7/32	
	6	RAB-6	6-7/32	
	7	RAB-7	7-7/32	
	8	RAB-8	8-7/32	

CABLE RANGE	OUTLETS	CATALOG NUMBER	L	H
#12 SOL TO 500 MCM	4	RAB-4S	7	2-5/8
	6	RAB-6S	10-1/2	
	8	RAB-8S	14	



## the ULTRA connector RXL Series Rubberized Aluminum Bar

- Extra rugged construction - fabricated from 6061-T6 aluminum with molded EPDM rubber insulation.
- Fully insulated and watertight - suitable for direct burial, handhole and pedestal applications.
- Only 20 Ft. Lbs. of torque required for a perfect connection on largest wire size.
- Wire range - #12 Sol. to 350 MCM.
- Ball bottom screw design helps break up aluminum oxides.



CATALOG NO.	OUTLETS	LENGTH
RXL-4	4	6-3/16"
RXL-6	6	9-5/16"
RXL-8	8	12-7/16"

Note: DUAL RATED for Aluminum and Copper Conductor

**HOMAC  
MFG.  
COMPANY**

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